



SEQUENCE LISTING

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Andersen, Kim Vilbourn
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Pedersen, Anders Hjelholt

<120> NEW MULTIMERIC INTERFERON BETA
POLYPEPTIDES

<130> 0220us210

<140> US 10/004,201

<141> 2001-11-01

<150> US 60/245,645

<151> 2000-11-02

<160> 39

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 840

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (76)...(636)

<221> sig_peptide

<222> (76)...(138)

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<222> (139)...(636)

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gttcgtgttg tcaac atg acc aac aag tgt ctc ctc caa att gct ctc ctg 111

Met Thr Asn Lys Cys Leu Leu Gln Ile Ala Leu Leu
-20 -15 -10

ttg tgc ttc tcc act aca gct ctt tcc atg agc tac aac ttg ctt gga 159
Leu Cys Phe Ser Thr Thr Ala Leu Ser Met Ser Tyr Asn Leu Leu Gly

-5 1 5

ttc cta caa aga agc agc aat ttt cag tgt cag aag ctc ctg tgg caa 207
Phe Leu Gln Arg Ser Ser Asn Phe Gln Cys Gln Lys Leu Leu Trp Gln

10 15 20

ttg aat ggg agg ctt gaa tac tgc ctc aag gac agg atg aac ttt gac 255
Leu Asn Gly Arg Leu Glu Tyr Cys Leu Lys Asp Arg Met Asn Phe Asp

25 30 35

atc cct gag gag att aag cag ctg cag cag ttc cag aag gag gac gcc	303
Ile Pro Glu Glu Ile Lys Gln Leu Gln Gln Phe Gln Lys Glu Asp Ala	
40 45 50 55	
gca ttg acc atc tat gag atg ctg cag aac atc ttt gct att ttc aga	351
Ala Leu Thr Ile Tyr Glu Met Leu Gln Asn Ile Phe Ala Ile Phe Arg	
60 65 70	
caa gat tca tct agc act ggc tgg aat gag act att gtt gag aac ctc	399
Gln Asp Ser Ser Ser Thr Gly Trp Asn Glu Thr Ile Val Glu Asn Leu	
75 80 85	
ctg gct aat gtc tat cat cag ata aac cat ctg aag aca gtc ctg gaa	447
Leu Ala Asn Val Tyr His Gln Ile Asn His Leu Lys Thr Val Leu Glu	
90 95 100	
gaa aaa ctg gag aaa gaa gat ttc acc agg gga aaa ctc atg agc agt	495
Glu Lys Leu Glu Lys Glu Asp Phe Thr Arg Gly Lys Leu Met Ser Ser	
105 110 115	
ctg cac ctg aaa aga tat tat ggg agg att ctg cat tac ctg aag gcc	543
Leu His Leu Lys Arg Tyr Tyr Gly Arg Ile Leu His Tyr Leu Lys Ala	
120 125 130 135	
aag gag tac agt cac tgt gcc tgg acc ata gtc aga gtg gaa atc cta	591
Lys Glu Tyr Ser His Cys Ala Trp Thr Ile Val Arg Val Glu Ile Leu	
140 145 150	
agg aac ttt tac ttc att aac aga ctt aca ggt tac ctc cga aac	636
Arg Asn Phe Tyr Phe Ile Asn Arg Leu Thr Gly Tyr Leu Arg Asn	
155 160 165	
tgaagatctc ctacgctgtg cctctgggac tggacaattg cttcaagcat tcttcaacca	696
gcagatgctg tttaagtgc tgatggctaa tgtactgcat atgaaaggac actagaagat	756
tttgaaattt ttattaaatt atgagttatt tttattttatt taaattttat tttggaaaat	816
aaattatttt tgggtcaaaa gtca	840

<210> 2
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 <212> PRT
 <213> Homo sapiens

<220>
 <221> SIGNAL
 <222> (1)...(21)

 <221> CHAIN
 <222> (22)...(187)

<400> 2
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 -20 -15 -10
 Thr Thr Ala Leu Ser Met Ser Tyr Asn Leu Leu Gly Phe Leu Gln Arg
 -5 1 5 10
 Ser Ser Asn Phe Gln Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg
 15 20 25
 Leu Glu Tyr Cys Leu Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu

gag gac gcc gct ctg acc atc tac gag atg ctg cag aac atc ttc gcc 291
 Glu Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu Gln Asn Ile Phe Ala
 55 60 65

atc ttc cgc cag gac tcc agc tcc acc ggt tgg aac gag acc atc gtg 339
 Ile Phe Arg Gln Asp Ser Ser Ser Thr Gly Trp Asn Glu Thr Ile Val
 70 75 80

gag aac ctg ctg gcc aac gtg tac cac cag atc aac cac ctg aag acc 387
 Glu Asn Leu Leu Ala Asn Val Tyr His Gln Ile Asn His Leu Lys Thr
 85 90 95 100

gtg ctg gag gag aag ctg gag aag gag gac ttc acc cgc ggc aag ctg 435
 Val Leu Glu Glu Lys Leu Glu Lys Glu Asp Phe Thr Arg Gly Lys Leu
 105 110 115

atg agc tcc ctg cac ctg aag cgc tac tat ggc cgc atc ctg cac tac 483
 Met Ser Ser Leu His Leu Lys Arg Tyr Tyr Gly Arg Ile Leu His Tyr
 120 125 130

ctg aag gcc aag gag tac agc cac tgc gcc tgg acc atc gta cgc gtg 531
 Leu Lys Ala Lys Glu Tyr Ser His Cys Ala Trp Thr Ile Val Arg Val
 135 140 145

gag atc ctg cgc aac ttc tac ttc atc aac cgc ctg acc ggc tac ctg 579
 Glu Ile Leu Arg Asn Phe Tyr Phe Ile Asn Arg Leu Thr Gly Tyr Leu
 150 155 160

cgc aac tgataaggat ccactagtcc agtgtgggtg 614
 Arg Asn
 165

<210> 4
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 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<221> VARIANT
 <222> 4
 <223> Xaa = Thr or Ser

<400> 4
 Ile Asn Ala Xaa
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<210> 5
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<220>
 <223> Synthetic construct

<221> VARIANT
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<223> Xaa = Thr or Ser

<400> 5
Gly Asn Ile Xaa
1

<210> 6
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<221> VARIANT
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<223> Xaa = Thr or Ser

<400> 6
Val Asn Ile Xaa
1

<210> 7
<211> 4
<212> PRT
<213> Artificial Sequence

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<223> Synthetic construct

<221> VARIANT
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<223> Xaa = Thr or Ser

<400> 7
Ser Asn Ile Xaa
1

<210> 8
<211> 5
<212> PRT
<213> Artificial Sequence

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<223> Synthetic construct

<221> VARIANT
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<223> Xaa = Thr or Ser

<400> 8

Ala Ser Asn Ile Xaa
1 5

<210> 9
<211> 6
<212> PRT
<213> Artificial Sequence

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<221> VARIANT
<222> 6
<223> Xaa = Thr or Ser

<400> 9
Ser Pro Ile Asn Ala Xaa
1 5

<210> 10
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
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<221> VARIANT
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<400> 10
Ala Ser Pro Ile Asn Ala Xaa
1 5

<210> 11
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
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<221> VARIANT
<222> 4, 8
<223> Xaa = Thr or Ser

<400> 11
Ala Asn Ile Xaa Ala Asn Ile Xaa Ala Asn Ile
1 5 10

<210> 12
<211> 14

<212> PRT
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 <221> VARIANT
 <222> 4, 9, 14
 <223> Xaa = Thr or Ser

 <400> 12
 Ala Asn Ile Xaa Gly Ser Asn Ile Xaa Gly Ser Asn Ile Xaa
 1 5 10

<210> 13
 <211> 40
 <212> DNA
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<220>
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<400> 13
 ccgtcagatc ctaggctagc ttattgcggt agtttatcac 40

<210> 14
 <211> 32
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 14
 gagctcggta ccaagctttt aagagctgta at 32

<210> 15
 <211> 77
 <212> DNA
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<220>
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<400> 15
 gctgaacggg cgcctggagt actgcctgaa ggacaggatg aacttcgaca tccccgagga 60
 aatccgccag ctgcagc 77

<210> 16
 <211> 35
 <212> DNA
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<220>
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<400> 16
 tctccacgcg tacgatgggc caggcgcagt ggctg 35

 <210> 17
 <211> 70
 <212> DNA
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 <400> 17
 caccacactg gactagtgga tccttatcag ttgcgcaggt agccggtcag gcggttgatg 60
 aagtagaagt 70

 <210> 18
 <211> 31
 <212> DNA
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 <400> 18
 catcagcttg ccggtggtgt tgtctctcctt c 31

 <210> 19
 <211> 31
 <212> DNA
 <213> Artificial Sequence

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 <223> Synthetic construct

 <400> 19
 gaaggaggac aacaccaccg gcaagctgat g 31

 <210> 20
 <211> 40
 <212> DNA
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 <223> Synthetic construct

 <400> 20
 cacactggac tagtaagctt ttatcagttg cgcaggtagc 40

 <210> 21
 <211> 47
 <212> DNA
 <213> Artificial Sequence

 <220>
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 <400> 21

gaggagttcg aacttccagt gccagcgct cctgtggcag ctgaacg 47

<210> 22
 <211> 33
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 22
 tttaaactgg atccagccac catgaccaac aag 33

<210> 23
 <211> 63
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 23
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 ttc 63

<210> 24
 <211> 62
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 24
 gaaggaggac aacaccaccg gcaagctgat gagctccctg cacctgaagc gctactatgg 60
 cc 62

<210> 25
 <211> 29
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 25
 cgcgatcca tatgaccaac aagtgcctg 29

<210> 26
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic construct

<400> 26

ggcgctcctcc ttggtgaagt tctgcagctg 30

<210> 27
 <211> 39
 <212> DNA
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<220>
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<400> 27
 atatatccca agcttttatc agttgcgcag gtagccggt 39

<210> 28
 <211> 30
 <212> DNA
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<220>
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<400> 28
 cagctgcaga acttcaccaa ggaggacgcc 30

<210> 29
 <211> 34
 <212> DNA
 <213> Artificial Sequence

<220>
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<400> 29
 cgcggatcca gccaccatga ccaacaagtg cctg 34

<210> 30
 <211> 43
 <212> DNA
 <213> Artificial Sequence

<220>
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<400> 30
 caggttgtag ctcatattcc ggagataccc cgtcaggcgg ttg 43

<210> 31
 <211> 65
 <212> DNA
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<220>
 <223> Synthetic construct

<400> 31
 ggtatctcgc gaatatgagc tacaacctgc tcggcttcct gcagcgcagt tcgaatttcc 60
 agtgc 65

<210> 32
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 32
aagaaggcac agtcgagg

18

<210> 33
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic linker peptide

<400> 33
Gly Ser Thr Ser Gly Ser Ser Gly Lys Ser Ser Glu Gly Lys Gly
1 5 10 15

<210> 34
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic linker peptide

<400> 34
Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
1 5 10 15

<210> 35
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic linker peptide

<400> 35
Gly Gly Gly Gly Ser Gly Gly Gly Asn Ser Thr Gly Gly Gly Ser
1 5 10 15

<210> 36
<211> 20
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<220>

<223> Synthetic primer

<400> 36

ggcacctatt ggtcttactg

20

<210> 37

<211> 65

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic primer

<400> 37

gcgggggagg cagcgggtggc gggaactcca ccggtggcgg gagcatgagc tacaacctgc 60
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<210> 38

<211> 66

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic primer

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gtccccgcca ccggtggagt tcccgccacc gctgcctccc ccgccattcc ggagataccc 60
cgtcag 66

<210> 39

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic primer

<400> 39

aagaaggcac agtcgagg

18